

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023545**Date Inspected:** 02-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

**OBG Trial Assembly Area**

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

FCAW welding of weld joints SA3126-003-005, 007; SA3126-004-005, 007; SA3126-005-005, 007 located on PCMK OBG 13CW. Welder was identified as 045143. QC was identified as ZPMC CWI Shi Lei (QC1). Weld variables recorded by QC1 appeared to comply with WPS-B-T-2231-ESAB as verbally identified by QC1.

FCAW welding of weld joints SA3126-020-005, 007; SA3126-021-005, 007; SA3126-022-005, 007; SA3126-023-005, 007; SA3126-024-005, 007; SA3126-025-005, 007 located on PCMK OBG 13CW. Welder was identified as 045280. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-B-T-2231-ESAB as verbally identified by QC1.

SMAW welding of weld joints SEG3015F-207~220 located on PCMK OBG 13CW. Welder was identified as 045196. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-B-P-2214-TC-U4b-FCM-1 as verbally identified by QC1.

SMAW welding of weld joints SEG3020AH-002, 003, 004 located on PCMK OBG 14W. Welders were identified as 066673, 066674. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with

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WPS-B-P-2212-TC-U4b-FCM-1 as presented to this QA Inspector and verbally identified by QC1. See photos below of electric preheat panels in place outside of segment 14W as the 2 welders perform SMAW of the weld joints inside.

SMAW welding of weld joints SEG3020D-018, 019 located on PCMK OBG 14W. Welder was identified as 067942. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-B-P-2214-FCM-1 as verbally identified by QC1.

SMAW repair welding of weld joint SEG3007-010 located on PCMK OBG 13AE. Welder was identified as 067589. QC was identified as ABF CWI Bao Qian (QC2). Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zhan Hai Feng (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-345-SMAW-3G(3F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-CWR2926 as presented to this QA Inspector and verbally identified by QCA2. This QA Inspector discussed with QCA2 the procedure in the CWR describing the necessary postheat requirement. QCA1 replied that he was aware of the requirement and ensured this QA Inspector that the postheat requirement would be performed in accordance with B-CWR2926 procedures.

FCAW welding of weld joint SEG3007P-075 located on PCMK OBG 13AE. Welder was identified as 055491. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QCA2.

FCAW welding of weld joint SEG3009C-005 located on PCMK OBG 13BE. Welder was identified as 050977. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QCA2.

FCAW welding of weld joint SEG3009E-005 located on PCMK OBG 13AE. Welder was identified as 066687. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QCA2.

FCAW welding of weld joints SEG3019Q-1-074, 077, 080 located on PCMK OBG 13AE. Welder was identified as 055564. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2132-ESAB as verbally identified by QCA2.

SMAW welding of weld joint SEG3019AH-003 located on PCMK OBG 14E. Welder was identified as 044779. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2212-TC-U4b-FCM-1 as verbally identified by QCA2.

SMAW welding of weld joint SEG3019AH-002 located on PCMK OBG 14E. Welder was identified as 215553. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation

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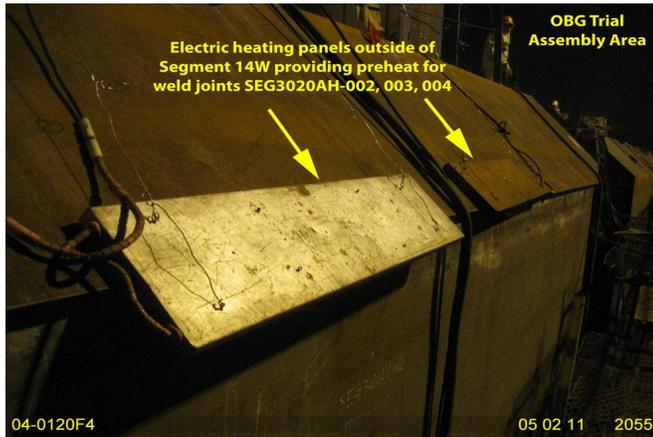
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and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2212-TC-U4b-FCM-1 as verbally identified by QCA2.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

As noted above.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey 15000026784, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

**Reviewed By:** Riley, Ken

QA Reviewer